

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-22928; Directorate Identifier 2005-NE-43-AD; Amendment 39-14406; AD 2005-25-13]

RIN 2120-AA64

Airworthiness Directives; Turbomeca Arriel 2B and 2B1 Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Turbomeca Arriel 2B and 2B1 turboshaft engines without modification TU22 incorporated. This AD requires initial and repetitive visual checks of the free turbine shield for cracks. This AD results from reports of several free turbine shields found with large circumferential cracks. We are issuing this AD to prevent failure of the free turbine shield, leading to engine misalignment, in-flight engine shutdown, emergency autorotation landing, or accident.

DATES: Effective December 28, 2005. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of December 28, 2005. We must receive any comments on this AD by February 13, 2006.

ADDRESSES: Use one of the following addresses to comment on this AD:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.
 - Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
 - Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.
 - Fax: (202) 493-2251.
 - Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Contact Turbomeca, 40220 Tarnos, France; telephone 33 05 59 74 40 00, fax 33 05 59 74 45 15, for the service information identified in this AD.

FOR FURTHER INFORMATION CONTACT: Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175; fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: The Direction Generale de L'Aviation Civile (DGAC), which is the airworthiness authority for France, notified us that an unsafe condition might exist on Turbomeca Arriel 2B and 2B1 turboshaft engines without modification TU22 incorporated. The DGAC advises that on several of these engines, large circumferential cracks were found in the free turbine shield at the blending radius between the containment shield and the rear flange. These cracks could cause a loss of engine alignment during maneuvering loads and lead to in-flight engine shutdown.

Relevant Service Information

We have reviewed and approved the technical contents of Turbomeca Alert Mandatory Service Bulletin No. A292 72 2821, dated June 27, 2005, that describes procedures for visual checks of the free turbine shield for cracks. The DGAC classified this service bulletin as mandatory and issued AD F-2005-162, dated September 28, 2005, in order to ensure the airworthiness of these Arriel 2B and 2B1 engines in France.

Bilateral Airworthiness Agreement

These Turbomeca Arriel 2B and 2B1 turboshaft engines are manufactured in France and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Under this bilateral airworthiness agreement, the DGAC kept the FAA informed of the situation described above. We have examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other Turbomeca Arriel 2B and 2B1 turboshaft engines without modification TU22 incorporated, of the same type design. We are issuing this AD to prevent failure of the free turbine shield, leading to engine misalignment, in-flight engine shutdown, emergency autorotation landing, or accident. This AD requires initial visual checks of the free turbine shield for cracks within 10 operating hours of the effective date of the AD, repetitive visual checks at certain compliance intervals based on shield condition, and replacement if necessary. This AD also allows incorporation of Turbomeca modification TU22 as optional terminating action to the required repetitive visual checks. You must use the service information described previously to perform the actions required by this AD.

FAA's Determination of the Effective Date

Since an unsafe condition exists that requires the immediate adoption of this AD, we have found that notice and opportunity for public comment before issuing this AD are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to send us any written relevant data, views, or arguments regarding this AD. Send your comments to an address listed under ADDRESSES. Include "AD Docket No. FAA-2005-22928; Directorate Identifier 2005-NE-43-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify it.

We will post all comments we receive, without change, to <http://dms.dot.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of the DMS Web site, anyone can find and read the comments in any of our dockets, including the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78) or you may visit <http://dms.dot.gov>.

Examining the AD Docket

You may examine the docket that contains the AD, any comments received, and any final disposition in person at the Docket Management Facility Docket Offices between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone (800) 647-5227) is located on the plaza level of the Department of Transportation Nassif Building at the street address stated in ADDRESSES. Comments will be available in the AD docket shortly after the DMS receives them.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a summary of the costs to comply with this AD and placed it in the AD Docket. You may get a copy of this summary by sending a request to us at the address listed under ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at www.faa.gov/aircraft/safety/alerts/

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-25-13 Turbomeca: Amendment 39-14406. Docket No. FAA-2005-22928; Directorate Identifier 2005-NE-43-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective December 28, 2005.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Turbomeca Arriel 2B and 2B1 turboshaft engines without modification TU22 incorporated. These engines are installed on, but not limited to, Eurocopter France AS350B3 and EC130B4 helicopters.

Unsafe Condition

- (d) This AD results from reports of several free turbine shields found with large circumferential cracks. We are issuing this AD to prevent failure of the free turbine shield, leading to engine misalignment, in-flight engine shutdown, emergency autorotation landing, or accident.

Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Visual Checks

- (f) Within 10 operating hours after the effective date of this AD:
- (1) Visually check the free turbine shield for cracks using 2.A. through 2.D.(2) of Turbomeca Mandatory Service Bulletin (MSB) A292 72 2821, dated June 27, 2005.
 - (2) Replace the free turbine shield or establish a repetitive check interval using the criteria in the following Table 1:

TABLE 1.—FREE TURBINE SHIELD CHECK, DISPOSITION CRITERIA

Number of cracks:	Crack locations using appendix 1 from MSB A292 72 2821:	Crack length:	Re-check using paragraphs (f)(1) and (f)(2) of this AD, or replace:
(i) 0	Not Applicable	Not Applicable	Re-check shield within 500 N1 cycles.
(ii) 1	D–A	(A) Less than 170 mm	Re-check shield within 100 N1 cycles.
		(B) Between 170 mm and 200 mm	Re-check shield daily.
		(C) Greater than 200 mm	Replace shield before further flight.
(iii) 1	A–B (5:00 o'clock Area)	(A) Less than 201 mm	Re-check within 100 cycles.
		(B) Between 201 mm and 248 mm	Re-check daily.
		(C) Greater than 248 mm	Replace shield before further flight.
(iv) 1	C–D (8:00 o'clock Area)	(A) Less than 297 mm	Re-check within 100 cycles.
		(B) Between 297 mm and 366 mm	Re-check daily.
		(C) Greater than 366 mm	Replace shield before further flight.
(v) 2	One in A–B and one in C–D.	(A) Zone 1 using Appendix 3 of MSB A292 72 2821.	Re-check within 100 cycles.
		(B) Zone 2 using Appendix 3 of MSB A292 72 2821.	Re-check daily.
		(C) Zone 3 using Appendix 3 of MSB A292 72 2821.	Replace shield before further flight.
(vi) 2	Either one or both in D–A.	Any	Replace shield before further flight.
(vii) 2	Both in A–B	Any	Replace shield before further flight.
(viii) 2	Both in C–D	Any	Replace shield before further flight.
(ix) 3 or more	Any	Any	Replace shield before further flight.

(3) You may treat multiple cracks adjacent to each other as a single crack by using the length measured between the two extremities of the cracks.

(4) Single cracks that span two locations must use the location that yields the most conservative re-check interval or replacement requirement.

Optional Terminating Action

(g) Incorporation of Turbomeca modification TU22 terminates the repetitive visual checks required by this AD.

Alternative Methods of Compliance

(h) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) Direction Generale de L'Aviation Civile AD F-2005-162, dated September 28, 2005, also addresses the subject of this AD.

Material Incorporated by Reference

(j) You must use Turbomeca Mandatory Service Bulletin A292 72 2821, dated June 27, 2005, to perform the actions required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Turbomeca, 40220 Tarnos, France; telephone 33 05 59 74 40 00, fax 33 05 59 74 45 15, for a copy of this service information. You may review copies at the Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001, on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on December 5, 2005.

Carlos Pestana,

Acting Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 05-23831 Filed 12-12-05; 8:45 am]

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